Fragment questions as contrastive topics over QUD

1 Introduction. Cross-linguistically, many languages exhibit *fragment questions* (FQs), which consist of only a fragment and a particle¹—for example, in Mandarin Chinese (1), Japanese (2), and Korean (3). FQs are both empirically and theoretically intriguing, as they display interrogative force without overt interrogative form.

(1) Mandarin Chinese:

(Li, 2016, ex.5)

A: What did Libai drink?

B: Red wine.

A: Dufu ne? 'What did Dufu drink?'

(2) Japanese:

(Maeda and Jeon, 2019, ex.7a)

A: What did Prof. Ohno drink?

B: Coffee.

A: Oka-sensei-wa? 'What did Prof. Oka drink?'

(3) Korean:

(Kim, 2021, ex.2)

A: What did Mimi drink?

B: Coffee.

A: *Momo-nun?* 'What did Momo drink?'

The core claim of this paper is that the apparent syntax-semantics mismatch in FQs does not result from ellipsis or conventionalization. Rather, FQs are syntactically and semantically nothing more than contrastive topics (CTs), with their interrogative force deriving from the Question under Discussion (QUD) they operate on. While the primary focus is on Mandarin Chinese, the analysis offers broader implications for the cross-linguistic treatment of FQs.

2 Previous accounts: FQs as elliptical interrogatives. Building on Merchant's (2004) analysis of fragment answers, the dominant view holds that FQs involve ellipsis, following a movement-and-deletion approach (Wei 2013, 2018; Li 2016; Maeda and Jeon 2019; Stigliano 2021, a.o.). For example, Li (2016) argues that the underlying form of the FQ in (1) is a full wh-question containing the CT phrase Dufu. Syntactically, the structure is represented as in (4): the CT operator ne projects a TopP and attracts the focused phrase Dufu to Spec-TopP (Constant, 2014). In this analysis, ne carries an E(llipsis) feature in FQs, which triggers the non-pronunciation of its complement (the IP) and imposes a presuppositional condition for ellipsis (Rooth, 1992).

(4) CP_2 $Q CP_1$ TopP $[Dufu]_{F1} Top'$ l $t_1 drank what$

We argue that the ellipsis-based approach faces several empirical challenges.

First, FQs can be uttered out of the blue, receiving a default *where*-question interpretation, as in (5). In such cases, it is unclear what the 'antecedent' for the silenced material would be.

(5) A: Anna ne? 'Where is Anna?'

B: She went to Tokyo./#She likes Tokyo. **Second**, the interpretation of FQs is highly flexible. As shown in (6b), an FQ may receive a wide range of interpretations, whereas its fully realized 'counterpart' in (6c) has a fixed meaning. This suggests that an FQ is not a formal copy of a preceding question.

(6) a. "Anna shi-bu-shi qu Tokyo wan-le?" "Yes!" Anna shi-NEG-shi go Tokyo play-prf

¹In Mandarin Chinese, Japanese, and Korean, this particle serves as a topic marker (see (1)-(3)), but in Spanish, it corresponds to the conjunction y 'and' (Stigliano, 2021).

'Did Anna go to Tokyo for fun?' 'Yes!'

- b. Betty ne?
 - 'Did Betty also go to Tokyo? / Did Betty go out for fun? / Where did Betty go for fun? / Did Betty go with Anna?...'
- c. Betty ne, shi-bu-shi ye qu Tokyo wan-le? Betty ne shi-neg-shi also go Tokyo play-prf 'Did Betty also go to Tokyo for fun?'

Third, FQs can introduce initial suggestions, as illustrated in (7). According to (7a), the QUD may be interpreted as *Who should we invite as the keynote speaker at the next TripleA*?. However, it remains unclear how the elided content in (7b) could be recovered from such a question.

- (7) a. I'm not sure who to invite for the keynote at the next TripleA.
 - b. (Yaoshi) qing Anna jiaoshou ne?
 - if invite Anna professor NE
 - 'How about inviting Prof. Anna?'

While space precludes a fuller discussion, we contend that these three facts already pose significant challenges to the ellipsis-based approach.²

- **3 Proposal:** FQs as CTs over QUD. We propose a dynamic account of FQs, arguing that FQs are syntactically and semantically nothing more than CTs. Specifically, we claim that, like regular CTs, FQs (i) presuppose a QUD on the current topic stack (Q_c) that has been partially resolved, and (ii) serve as the topic of the remaining QUD (cf. Büring 2003; Constant 2014). A simplified representation is given in (8).
- (8) $c' = c + \lceil \text{Fragment Ne} \rceil = c + \text{Topic}(\text{Fragment})$ Defined only if $Q_c \neq <>$ and QUD_c is partially answered.

Take (1) as a toy example. In (1), *Dufu ne* presupposes a QUD such as *What did Libai and Dufu drink?* or *Who drank what?*. This QUD must have been partially answered—e.g., Libai is known to have drunk red wine—but remains on the stack because it has not yet been fully resolved, thereby prompting further inquiry by the interlocutors. On this view, the interrogative force of FQs does not derive from overt interrogative syntax but rather from their association with a covert QUD.

Building on Aloni et al.'s (2007) dynamic theory of topics, we represent the contribution of Dufu ne in (1) as in (9). The FQ contributes no truth-conditional content but instead presuppositions, modeled using Beaver's 2001 partial operator ∂ . The key distinction between regular CTs and FQs lies in who is expected to answer the presupposed QUD: with CTs, it is the speaker; with FQs, the responsibility falls on other interlocutors.

(9) $\partial[?xy \operatorname{drink}(x,y) \wedge \exists x(x \neq \operatorname{Dufu})\exists y = z[\operatorname{drink}(x,z)]] \wedge \partial[?y(y = \operatorname{Dufu})]$

In contexts without a prior antecedent, we propose that FQs trigger **QUD accommodation**: the hearer accommodates a plausible implicit QUD into the topic stack, which must also be partially resolved by the context. For instance, in discourse-initial cases such as (5), an FQ is interpreted as a *where*-question because the locations of the interlocutors is the most salient (and even the only accessible) information in the context. The accommodated QUD can be approximated as: *Where are the relevant individuals or objects?*—a question that is partially answered by the presumed presence of the interlocutors.

4 Conclusion. Unlike ellipsis- or conventionalization-based accounts, this paper argues that FQs function as regular CTs at the discourse level, with their interpretation guided by the dynamic structure of QUDs. While the data come primarily from Mandarin, the analysis may extend cross-linguistically.

²Kim (2021) also proposes a direct interpretation approach to FQs in Korean. While we adopt a different model, additional evidence against the ellipsis-based approach can be found there.

References.

- Aloni, M., Beaver, D., Clark, B., and Van Rooij, R. (2007). 6: The dynamics of topic and focus. In *Questions in dynamic semantics*, pages 123–145. Brill.
- Beaver, D. I. (2001). *Presupposition and assertion in dynamic semantics*, volume 29. CSLI publications Stanford.
- Büring, D. (2003). On d-trees, beans, and b-accents. *Linguistics and philosophy*, 26:511–545.
- Constant, N. (2014). *Contrastive topic: Meanings and realizations*. PhD thesis, University of Massachusetts Amherst.
- Kim, J.-B. (2021). Fragment questions: A direct interpretation approach. *Linguistic Research*, 38(3):445–468.
- Li, H. (2016). Fragment questions: Deleting question items. In *Proceedings of the 46th Annual Meeting of the North East Linguistic Society*, pages 279–292.
- Maeda, M. and Jeon, H. (2019). Fragmentary questions in japanese and korean. In *Proceedings* of the 12th Generative Linguistics in the Old World in Asia & the 21st Seoul International Conference on Generative Grammar, pages 173–191.
- Merchant, J. (2004). Fragments and ellipsis. *Linguistics and Philosophy*, 27(6):661–738.
- Rooth, M. (1992). Ellipsis redundancy and reduction redundancy. In *Proceedings of the Stuttgart ellipsis workshop*, volume 29, pages 1–26. Stuttgart, Germany.
- Stigliano, L. (2021). Ellipsis requires syntactic and semantic identity. evidence from fragment questions in spanish. *Proceedings of the Linguistic Society of America*, 6(1):619–627.
- Wei, T.-C. (2013). Fragment question and ellipsis in chinese. *Studies in Chinese Linguistics*, 34(3).
- Wei, T.-C. (2018). Fragment questions in mandarin chinese: Topic movement and pied-piping. *Language and Linguistics*, 19(2):266–305.